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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/594,666
Filing Date: September 28, 2006
Appellant(s): CAMPBELL ET AL.

Alan M Kagen
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/23/2010
appealing from the Office action mailed 06/02/2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Pre-Brief Appeal Conference decision made 10/25/20010. The Panel consisted of Marc Jimenez, Katherine Mitchell and Daniel Cahn.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1, 2, 4-6, 17, 18 and 20 are rejected in the application, and on appeal.

Claims 3, 7-16, 19, 22 and 23 are currently withdrawn and pending.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being

maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

3752263 Thevenot

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Thevenot (US 3752263), or in the alternative claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thevenot (US 3752263).

Regarding claim 20, Thevenot teaches a **mast lift (Fig. 1) for personnel configurable** [capable of being configured] **with a plurality of independent components, the independent components comprising:**

a base unit including a mast (which could be interpreted as all of the vertical framework 14 or it could be interpreted as simply as the single pole 15A Fig. 1), **a stand** (11, 12; Fig. 4) **and a platform lifting system** (Fig. 5);

a personnel work platform (18; Fig. 1 or 2) **attachable** [capable of being attached] **to the base unit; and**

a power pack (as seen by motor 27) **engageable** [able to engage] **with the platform lifting system** (as depicted in Fig.'s), **wherein the mast lift is a portable stand-alone unit, either free-standing or supportable** [capable of being supported] **against a support surface** (such as a floor), **and wherein a machine weight of the assembled mast lift is less than 200 pounds** (examiner notes that as claimed, the "a machine weight of the assembled mast lift" could be interpreted as any element which is inherently less than 200 pounds on the lift of Fig. 1; to explain more clearly, the wheel at 13 or the back post 15 in fig. 2, etc... are inherently 'a weight' respectively and inherently use their weight to provide a counterbalance to the platform lift).

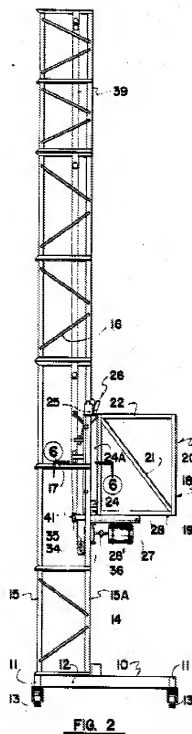
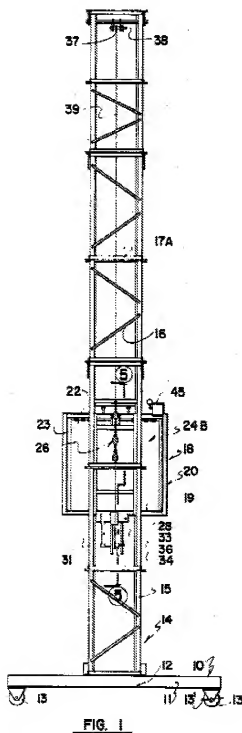
However, in the alternative, if it is found that "a machine weight" can not be interpreted as an element of the system in Fig. 1, all of the elements of the instant

invention are discussed in detail above except providing the machine weight of the mast lift as weighing less than 200 pounds. However, attention shall be drawn to the fact that it would have been an obvious matter of engineering design to a person of ordinary skill in the art to provide the machine weight of the mast lift as less than 200 pounds since discovering an optimum weight would have been a mere design consideration based on the characteristics of the material and/or amount of the material used. Such a modification of a material (such as a material lighter in weight and/or changing the dimensions (amount of material used via thickness, length, tubular, etc...)) would have involved only routine skill in the art to accommodate different weight requirements depending on the desired characteristics of the mast, whether the desired characteristics are to enable the user to have the well known in the art ability of making the object easier to assemble and/or making the object easier to transport. Examiner further notes that it is not a novel concept or inventive idea to make a modular item lighter by using a lighter material and/or less material (via the dimension of the support beams/rods/etc; such as making the beams tubular or thinning the thickness, lengths or widths, etc.) in order to make the modular item easier to move and/or assemble. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Patented Aug. 14, 1973

3,752,263

3 Sheets-Sheet 1



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4 -6, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thevenot (US 3752263). [Note that the rejections here of claims 5,6 and 20-21 are cancelled as they were typing errors. Claims 5 and 6 were and are separately rejected using Thevenot in view of Martin]

First, the independent claims of 1 ~~and 20~~,

Regarding claim 1, Thevenot teaches **a mast lift for personnel comprising:**

a mast (which could be interpreted as all of the vertical framework, 14 or it could be interpreted as simple as the single pole 15A Fig. 1);

a personnel work platform (18; Fig. 1 or 2) **movably secured to the mast** (as depicted in Fig. 5); **and a lift system** (Fig. 5) **coupled between the work platform and the mast, the lift system effecting raising and lowering of the work platform on the mast, wherein the mast lift is a portable stand-alone unit** (as seen by the wheels 13; Fig. 1 or 2), **either free-standing or supportable** [capable of being supported] **against a support surface** (such as a ground/floor).

All of the elements of the instant invention are discussed in detail above except providing the machine weight of the mast lift as weighing less than 200 pounds.

However, attention shall be drawn to the fact that it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide the machine weight of the mast lift as less than 200 pounds since discovering an optimum weight would have been a mere design consideration based on the characteristics of the material and/or amount of the material used. Such a modification of a material (such as a material lighter in weight and/or changing the dimensions (amount of material used via thickness, length, tubular, etc...)) would have involved only routine skill in the art to accommodate different weight requirements depending on the desired characteristics of the mast, whether the desired characteristics are to enable the user to have the well known in the art ability of making the object easier to assemble and/or making the object easier to transport. Examiner further notes that it is not a novel concept or inventive idea to make a modular item lighter by using a lighter material and/or less material (via the dimension of the support beams/rods/etc; such as making the beams tubular or thinning the thickness, lengths or widths, etc.) in order to make the modular item easier to move and/or assemble. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 2, **the work platform comprises a safety rail (22; Fig. 2) at least partially about its perimeter.**

Regarding claim 4, **the lift system is coupleable** [capable of being coupled] **with a power source** (as seen by the motor 27 in Fig. 2).

Regarding claims 17, 18 ~~and 21~~, all of the elements of the instant invention are discussed in detail above except providing the machine weight of the mast lift as less than 120, 150 pounds. However, attention shall be drawn to the fact that it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide the machine weight of the mast lift as less than 120/150 pounds since discovering an optimum weight would have been a mere design consideration based on the characteristics of the material and/or amount of the material used. Such a modification of a material (such as a material lighter in weight and/or changing the dimensions (amount of material used via thickness, length, tubular, etc...)) would have involved only routine skill in the art to accommodate different weight requirements depending on the desired characteristics of the mast, whether the desired characteristics are to enable the user to have the well known in the art ability of making the object easier to assemble and/or making the object easier to transport. Examiner further notes that it is not a novel concept or inventive idea to make a modular item lighter by using a lighter material and/or less material (via the dimension of the support beams/rods/etc; such as making the beams tubular or thinning the thickness, lengths or widths, etc.) in order to make the modular item easier to move and/or assemble. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 5 and 6 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Thevenot as applied to claim 4 above, and further in view of Martin (US 5522583).

Regarding claims 5 and 6, all of the elements of the instant invention are discussed in detail above except providing that **the power source comprise of a battery pack or hand-held drill**. Attention is therefore directed toward Martin which teaches a similar user operated power driven element (in this case a jack or lift) which has a drive motor that can be an electric drill with chuck removed and the eccentric carrying shaft substituted, with an intrinsic rechargeable battery (battery pack). It would have been obvious to one of ordinary skill in the art at the time of the invention to have been substituted the user operated motor of Thevenot with a user operated power source such as a hand held drill having a battery pack or a batter pack in order to provide the user with multiple options and means in which to drive a driveable elements such as a moveable work platform.

Regarding claims 5 and 6, examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to have substituted the motor used Thevenot with a different type of power source such as a battery pack or hand-held drill since it is well known for any power source to be substituted for another to accomplish the same goal or outcome.

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mounting the power delivery mechanism on the original jack. Jacks of different capacities are often best served by frames of different configurations. The drive motor can be an electric drill with chuck removed and the eccentric carrying
5 shaft substituted, with in intrinsic rechargeable battery or power supply cord, but the arrangement shown is preferred. The electric motor and gear box combination is known as a gear motor and is commercially available for either utility AC power or direct current (DC). If a DC motor is used it
10 can be connected by a cord to a vehicle type battery or to a portable rechargeable pack, preferably combined with switch controls.

(10) Response to Argument:

1) (emphasis on part 1) The appellant contends that the entire mast lift's weight is less than 200 pounds and further stresses that Thevenot could not possibly be modified to weigh less than 200 pounds. The examiner notes that this may be a moot argument considering that this is only how the examiner interpreted claim 1 in the Final Action, yet, the claimed subject matter can be more broadly interpreted so that only one element of the mast lift need be less than 200 pounds; in the final 2 lines of the independent claims 1 and 20, the claims respectively state "a machine weight of the mast lift is less than 200 pounds". Note that the claim does not claim that -the entire mast lift is less than 200 pounds-, but it claims that a machine weight of the mast lift is

less than 200 pounds. It is noted that any element such as the motor, or the axle of the motor or the pulley of the lift can be reasonably interpreted as this "machine weight of the mast lift" and inherently these elements respectively would weigh less than 200 pounds.

However, if it is not found inherent, the following applies:

2) On pages 11-12, the appellant argues that they have provided analysis to show that Thevenot could not possibly weight below the 200 pound parameter.

The examiner points out that the provided evidence by the appellant is erroneous on numerous levels, and this analysis should be discredited since the formulas used were improper and incorrect, the math did not add up correctly, and numbers were postulated without a link to any hard facts relating to the Thevenot structure. Also, on line 5 of page 12, the appellant admits to using assumptions and simplifications as necessary. A few non-limiting examples of the inability to review the table as valid include:

- it does not provide unit of measurements for the area, length and volume column found in columns 7, documented labels describing how the areas and lengths were estimated and it does not state what type of aluminum and steel are being used (examiner strongly asserts there are numerous alloys of aluminum and steel with different weight/densities in which to calculate the weight of a structure;

- the Appellant has only assumed 1, unknown, aluminum and steel. Further, if an alloy is chosen that is stronger than steel, for example, a Titanium alloy, then less material would be used. As for the validity of the table:

-the numbers do not even seem to add up correctly and the formula used is questionable - for example, in the box stating .0085 found in column 7 $(A1+A2) \times \text{Length}$ and row 1 (tower verticals - Lshape) - what length is being used here? Shouldn't there be at least two lengths? Also, according to the formula, column 3 (A1) is added column 4 (A2) and multiplied by the already questionable length (assume column 5), yet it does not end in the volume recited in the box of column 7. Again it is noted that on line 5 of page 12, the appellant admits to using assumptions and simplifications.

Importantly, the examiner suggests that a reader of this not be distracted by the table used by the appellant, since the point at hand is that it would be obvious to one of ordinary skill in the art to **modify** the structure of Thevenot. The appellant contends that the weight of the mast is not merely a matter of design choice and that substantial engineering input is required in order to achieve the defined weight requirement of the invention. The appellant further contends that the Thevenot structure could not possibly be modified to fit the weight requirements as claimed.

With respect to the argument that weight can provide novel subject matter, the examiner agrees that weight can be an important factor on patentable subject matter and novelty. However, in this case, the claims are too broad and do not distinctly describe the appellants novel subject matter in such a way that deters or makes it unobvious to one of ordinary skill in the art to modify the Thevenot structure (whether to modify Thevenot by using a smaller scaled down structure, or use hollow lightweight tubing, or shorten the tower's height. Thevenot meets every limitation although it may not explicitly teach that the weight of the entire mast lift is below a specific value.

However, it would merely have been a matter of design choice or optimization for someone of ordinary skill in the art to modify Thevenot in a number of ways to lower its weight so that its easier to move or transport; here is how:

a) scale down the size (e.g. - make a smaller scaled down, as a toy for children or smaller jobs)

From the MPEP: Changes in Size/Proportion

In re Rose , 220 F.2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.); In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F.2d at 1053, 189 USPQ at 148.).

b) use lighter weight material, hollow material; It is well known in many, if not all mechanical arts, including the art of class 182 that providing a lighter material or even changing the shape/design of the material by thinning out the widths, thickness or shortening the lengths of a structure (such as a beam) in order to reduce weight, whether it for the ease of transportation, assembly, price, or something else. With respect to the material, something such as aluminum, titanium, a magnesium alloy [which is known to be significantly lighter than aluminum], or any other material including lighter polymers can be used separately or in combination with changing the shape/design of the material/element so as to reduce the amount used for cost purposes or weight reduction purposes. Using 1 or both of these forms of lightening an apparatus is well documented in the art for many reasons including cost shaving, assembly or transportation easing.

c) shorten the tower; i.e. - by making it only 5 feet tall so as to elevate someone up onto a stage of some sort. It is well known in the art that making a structure shorter makes it easier to relocate and move; this inherently reduces the weight, thereby, just claiming that the weight is reduced without claiming structure to coincide with the claimed weight limit is not patentable and is obvious to do, as per the reason just mentioned, to make it easier to move or relocate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Thevenot in the 3 manners suggest above so as to allow the user to transport more easily and use it for specific jobs, where providing these obvious changes would easily bring the weight below 200 pounds. All of these examples provided above can be combined or modified separately to provide an obvious design choice that one of ordinary skill in the art would use and that would inherently reduce the weight of a specific structure. Furthermore, optimizing the weight to less than 200 pounds would have been an obvious matter of design choice for one of ordinary skill in the art to allow portability, it is well known in the art to use lighter and hollow material in order to do so.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/DANIEL CAHN/

Examiner, Art Unit 3634

Conferees:

/Katherine Mitchell/

Supervisory Patent Examiner, Art Unit 3634

/MJ/ Marc Jimenez